



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> <b>Kristen A. Aguanno</b>	<b>Project Number</b> <b>S1001</b>
<b>Project Title</b> <b>A Study Comparing the Respiration Rate to Weight Ratio of Two Different Families of the Order Cetacea</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective was to study two different families of the order Cetacea and find out if the respiration rate to weight ratio will differ between different age groups of <i>Orcinus orca</i> of the family Delphinidae, and <i>Delphinapterus leucas</i> of the family Monodontidae. <b>Methods/Materials</b> I went to Sea World, San Diego, CA and San Antonio, TX, to collect the respiration rate to weight ratios for ten killer whales and ten beluga whales. My data included ten trials for each whale for a total of 200 trials. <b>Results</b> The results show the killer whales' respiration rate to weight ratio was affected by age when comparing younger whales to older whales. Also the beluga whales' respiration rate to weight ratio was affected by age when comparing younger whales to older whales. When comparing the killer whales' and the beluga whales' respiration rate to weight ratios, there were no similarities between the two families. <b>Conclusions/Discussion</b> My hypothesis was not supported. When studying two different families of the order Cetacea, the respiration rate to weight ratio did differ between different age groups of <i>Orcinus orca</i> of the family Delphinidae, and <i>Delphinapterus leucas</i> of the family Monodontidae.	
<b>Summary Statement</b> When studying two different families of the order Cetacea, the respiration rate to weight ratio did differ between different age groups of <i>Orcinus orca</i> of the family Delphinidae, and <i>Delphinapterus leucas</i> of the family Monodontidae.	
<b>Help Received</b> My mother and father bought me a pass to Sea World and took me to both Sea Worlds. My father also helped me with my board.	